

WHAT IS CLAIMED IS:

1. A method for printing comprising the steps of:
receiving a print designation to print a document;
receiving a description of graphics contained in the document;
5 obtaining one of the graphics;
determining if a preprocessed form of the graphic is available for
reuse, and if so, retrieving the processed data therefor from preprocessed
graphics storage; and
formulating a print job.

10 2. The method as defined in claim 1, further comprising the step of if
no preprocessed form of the graphic is available, then processing the
graphic.

3. The method as defined in claim 2, further comprising the step of, if
it is determined that the preprocessed form of the graphic is not available
15 for reuse, then determining if the newly processed graphic should be
stored in preprocessed graphics storage based on a criteria; and if so,
then storing the newly processed graphic in the preprocessed graphics
storage.

4. The method as defined in claim 3, wherein the criteria for the
20 determining step comprises whether the graphic is repeated more than a
predetermined number of times in the document.

5. The method as defined in claim 3, wherein the criteria for the
determining step comprises whether the graphic is less than an entire
page.

25 6. The method as defined in claim 3, wherein the criteria for said
determining step comprises receiving a manual selection.

7. The method as defined in claim 3, wherein the criteria for said determining step comprises receiving metadata information about said obtained graphic.

8. The method as defined in claim 1, further comprising the step of printing the document.

9. The method as defined in claim 2, wherein the processing step comprises creating a bitmap from the graphic.

10. The method as defined in claim 1, wherein the obtaining step comprises interacting with a composition store service to obtain the graphic.

11. The method as defined in claim 1, wherein the obtaining step comprises interacting with a graphic store service to obtain the graphic.

12. The method as defined in claim 1, wherein the obtaining step comprises interacting with a web imaging extension to obtain the graphic.

13. A method for fast processing of graphics for printing, comprising the steps of:

determining graphics that are to be preprocessed and reused based on a criteria;

preprocessing the graphics;

storing the preprocessed graphics;

retrieving selected preprocessed graphics; and

formulating a print job that includes the preprocessed graphics.

14. The method as defined in claim 13, wherein the criteria for said determining step comprises whether the graphic is repeated more than a predetermined number of times.

15. The method as defined in claim 13, wherein the criteria for said determining step comprises whether the graphic is less than an entire page.

5 16. The method as defined in claim 13, wherein the criteria for said determining step comprises whether the graphic is repeated across a plurality of documents to be printed.

17. The method as defined in claim 13, wherein the criteria for said determining step comprises receiving a manual selection.

10 18. The method as defined in claim 13, wherein the criteria for said determining step comprises receiving metadata information about said obtained graphic.

19. The method as defined in claim 13, wherein the preprocessing step comprises creating a bitmap of the content.

15 20. The method as defined in claim 19, wherein the preprocessing comprises compressing the bitmap.

21. A printer web service for printing comprising:
a web interface;
a printer;
a first component for receiving a print designation from the web
20 interface to print a document;
a second component for obtaining a description of graphics contained in the document;
a third component for obtaining one of the graphics or a reference thereto;
25 a fourth component for determining if the graphic has been already preprocessed and available for reuse, and if so, retrieving the processed

data therefor from a preprocessed graphics storage, and if no, then processing the graphic; and

a fifth component for formulating a print job.

22. The system as defined in claim 21, wherein the fourth component
5 includes a component which, if it is determined that a preprocessed form of the graphic is not available for reuse, determines if the newly processed graphic should be stored in preprocessed graphics storage based on a criteria; and if so, then storing the newly processed graphic in the preprocessed graphics storage.

10 23. A program product for printing comprising computer readable program code for causing a printer to perform the following method steps:
receiving a print designation to print a document;
receiving a description of graphics contained in the document;
obtaining one of the graphics or a reference thereto;
15 determining if a preprocessed form of the graphic is available for reuse, and if so, retrieving the processed data therefor from preprocessed graphics storage; and
formulating a print job.

24. The program product as defined in claim 23, wherein if no
20 preprocessed form of the graphic is available, then processing the graphic.

25. The program product as defined in claim 24, further comprising code for causing the method to perform the step of, if it is determined that the preprocessed form of the graphic is not available for reuse, then determining if the newly processed graphic should be stored in
25 preprocessed graphics storage based on a criteria; and if so, then storing the newly processed graphic in the preprocessed graphics storage.

26. A method for printing comprising the steps of:

receiving a print designation to print a plurality of documents;
receiving a description of graphics contained in the each of the
plurality of documents;

for each of a plurality of the graphics in the plurality of documents,
5 obtaining the graphic;
determining if a preprocessed form of the obtained graphic has
been is available for reuse, and if so, retrieving the processed data
therefor from preprocessed graphics storage; and
formulating a print job.

10 27. The method as defined in claim 26, wherein, if it is determined that
no preprocessed form of the obtained graphic is available for reuse, then
processing the graphic.

28. The method as defined in claim 27, further comprising the step of,
if it is determined that the preprocessed form of the graphic is not
15 available for reuse, then determining if the newly processed graphic
should be stored in preprocessed graphics storage based on a criteria; and
if so, then storing the newly processed graphic in the preprocessed
graphics storage.

29. The method as defined in claim 28, wherein the criteria for said
20 determining step comprises whether the graphic is repeated more than a
predetermined number of times in one or more documents.

30. The method as defined in claim 28, wherein the criteria for said
determining step comprises whether the graphic is less than an entire
page.

25 31. The method as defined in claim 28, wherein the criteria for said
determining step comprises receiving a manual selection.

32. The method as defined in claim 28, wherein the criteria for said determining step comprises receiving metadata information about said obtained graphic.

33. The method as defined in claim 26, further comprising the step of
5 printing the document.

34. The method as defined in claim 27, wherein the processing step comprises creating a bitmap from the graphic.

35. The method as defined in claim 26, wherein the obtaining step comprises interacting with a composition store service.

10 36. The method as defined in claim 26, wherein the obtaining step comprises interacting with a graphic store service.

37. The method as defined in claim 26, wherein the obtaining step comprises interacting with a web imaging extension.

15 38. A method for fast processing of graphics for printing in a plurality of print jobs, comprising the steps of:
determining graphics that are to be preprocessed in the plurality of print jobs based on a criteria;
preprocessing the determined graphics;
storing the preprocessed graphics;
20 retrieving selected preprocessed graphics; and
formulating a plurality of print jobs that includes the preprocessed graphics.

39. The method as defined in claim 38, wherein the criteria for said determining step comprises whether the graphic is repeated more than a
25 predetermined number of times.

40. The method as defined in claim 38, wherein the criteria for said determining step comprises whether the graphic is less than an entire page.

41. A system for printing comprising:

- 5 a component for receiving a print designation to print a plurality of documents;
- a component for receiving a description of graphics contained in the each of the plurality of documents;
- a component for obtaining the graphic for each of a plurality of the
- 10 graphics in the plurality of documents;
- a component for determining if a preprocessed form of the obtained graphic has been is available for reuse, and if so, retrieving the processed data therefor from preprocessed graphics storage; and
- a component for formulating a print job.

15 42. A program product for printing comprising computer readable code for causing a system to perform the following method steps:

- receiving a print designation to print a plurality of documents;
- receiving a description of graphics contained in the each of the plurality of documents;
- 20 for each of a plurality of the graphics in the plurality of documents, obtaining the graphic;
- determining if a preprocessed form of the obtained graphic has been is available for reuse, and if so, retrieving the processed data therefor from preprocessed graphics storage; and
- 25 formulating a print job.